

# Multi-perspective label based deep learning framework for cerebral vasculature segmentation in whole-brain fluorescence images: supplement

YUXIN LI,<sup>1</sup>  TONG REN,<sup>1</sup> JUNHUAI LI,<sup>1</sup> XIANGNING LI,<sup>2,3</sup> AND ANAN LI<sup>2,3,\*</sup>

<sup>1</sup>*Shaanxi Key Laboratory of Network Computing and Security Technology, School of Computer Science and Engineering, Xi'an University of Technology, Xi'an, 710048, China*

<sup>2</sup>*Britton Chance Center for Biomedical Photonics, Wuhan National Laboratory for Optoelectronics, MoE Key Laboratory for Biomedical Photonics, School of Engineering Sciences, Huazhong University of Science and Technology, Wuhan, 430074, China*

<sup>3</sup>*HUST-Suzhou Institute for Brainsmatics, Suzhou, 215123, China*

\*[aali@hust.edu.cn](mailto:aali@hust.edu.cn)

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## Supplemental Document

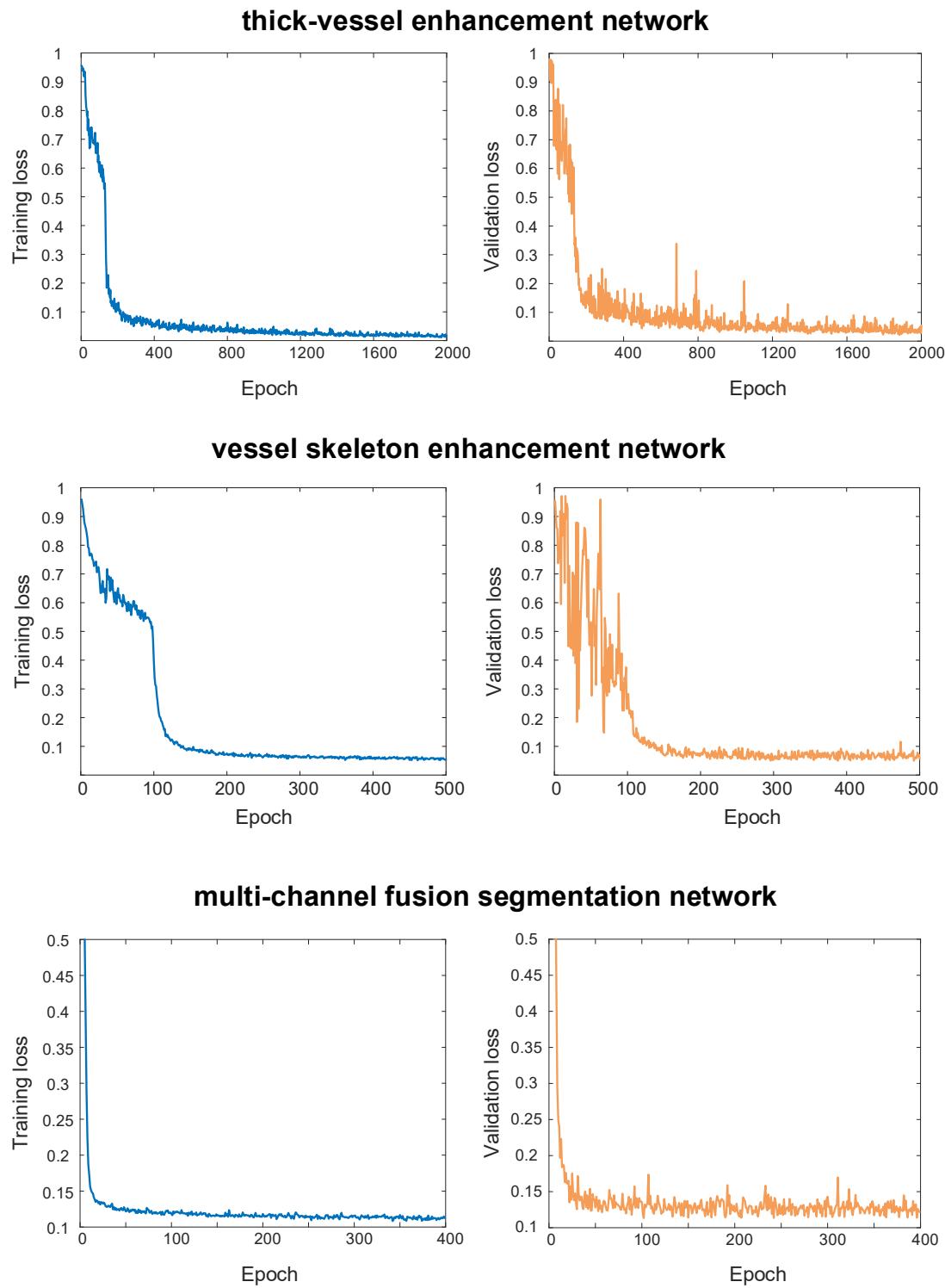
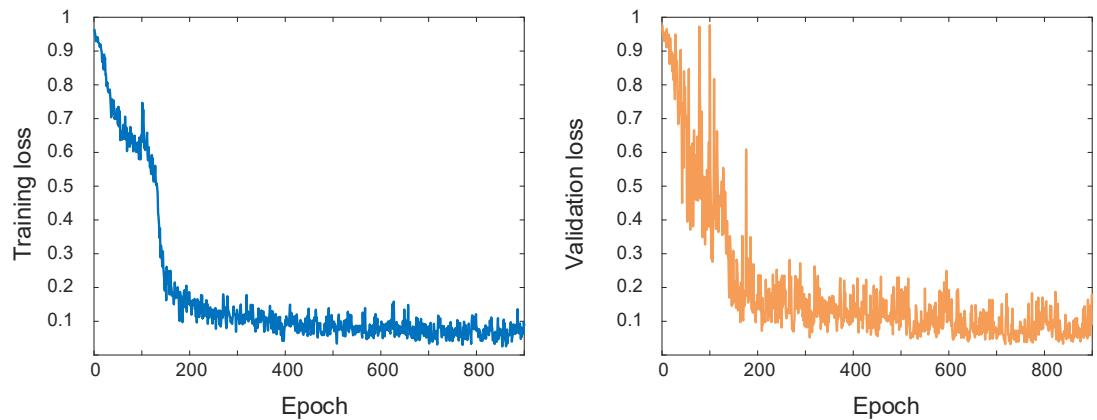
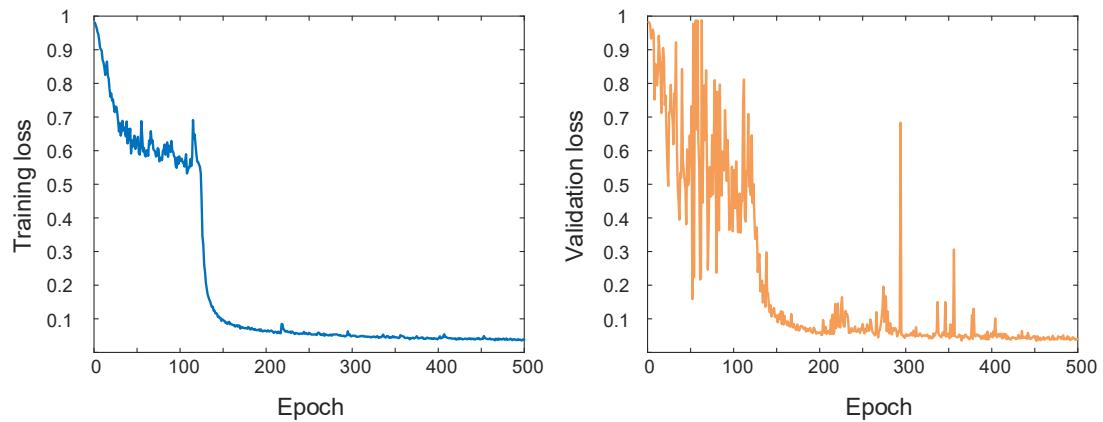


Fig. S1. The training and validation loss curves of dataset 1.

### **thick-vessel enhancement network**



### **vessel skeleton enhancement network**



### **multi-channel fusion segmentation network**

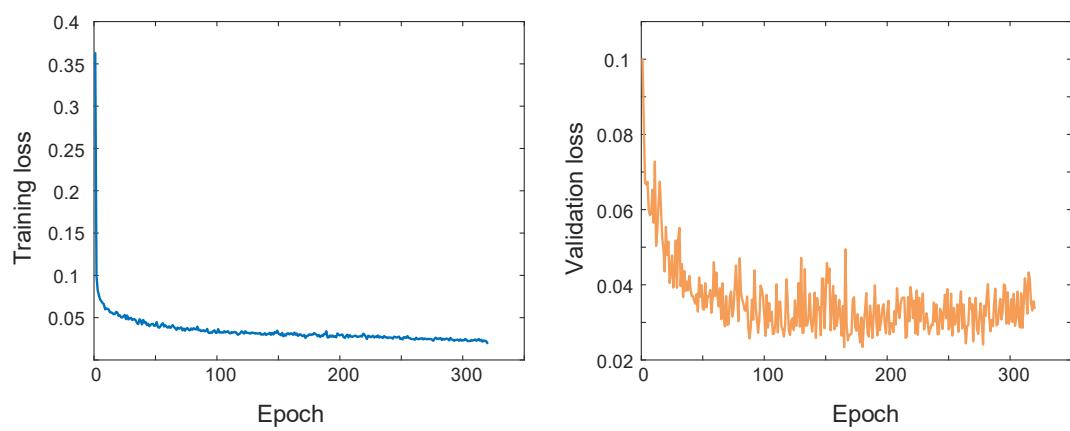


Fig. S2. The training and validation loss curves of dataset 2.

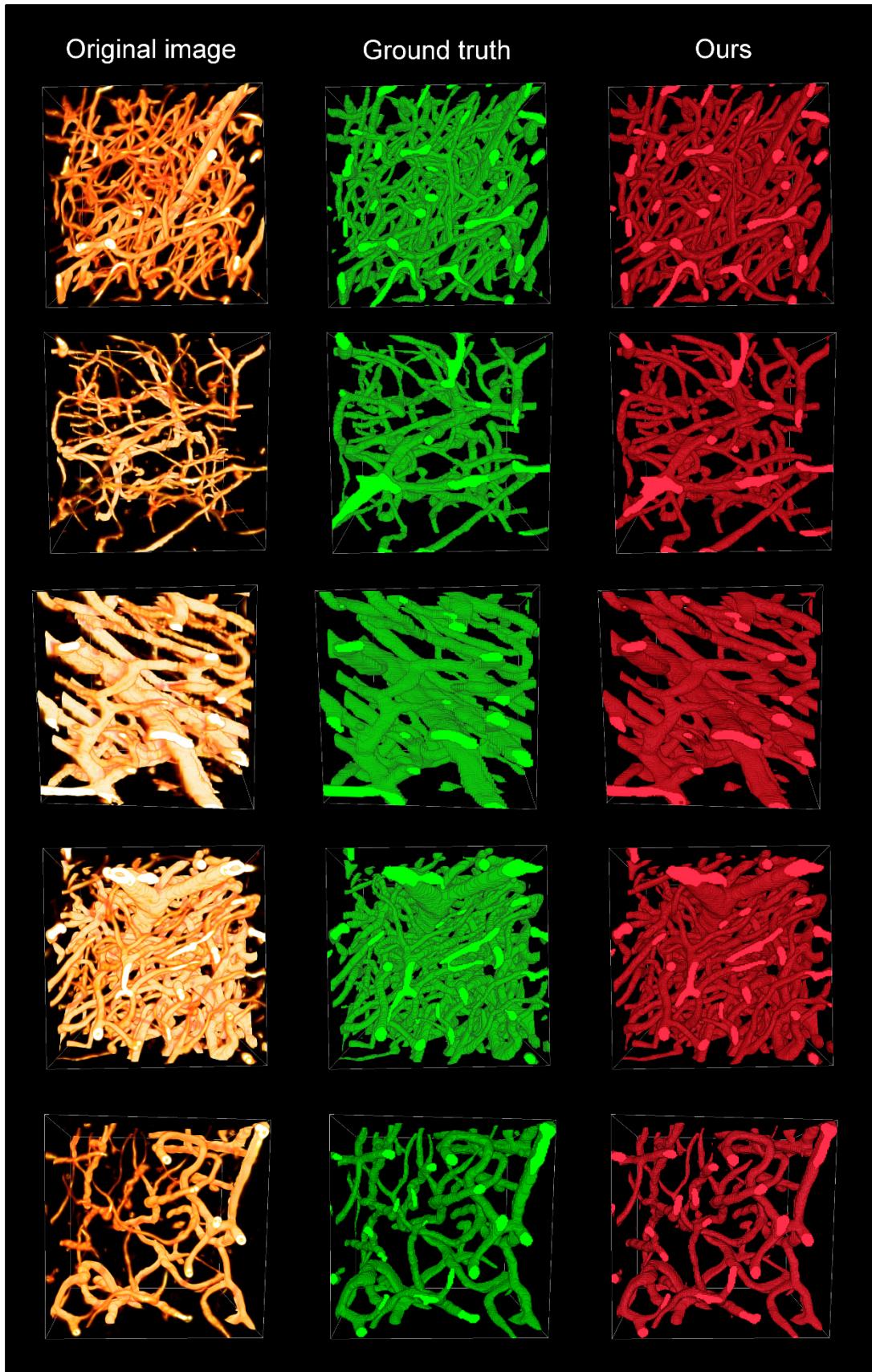


Fig. S3. Five examples of vessel segmentation results on dataset 1 (test dataset). Volume size:  $192 \times 192 \times 192 \mu\text{m}$ .

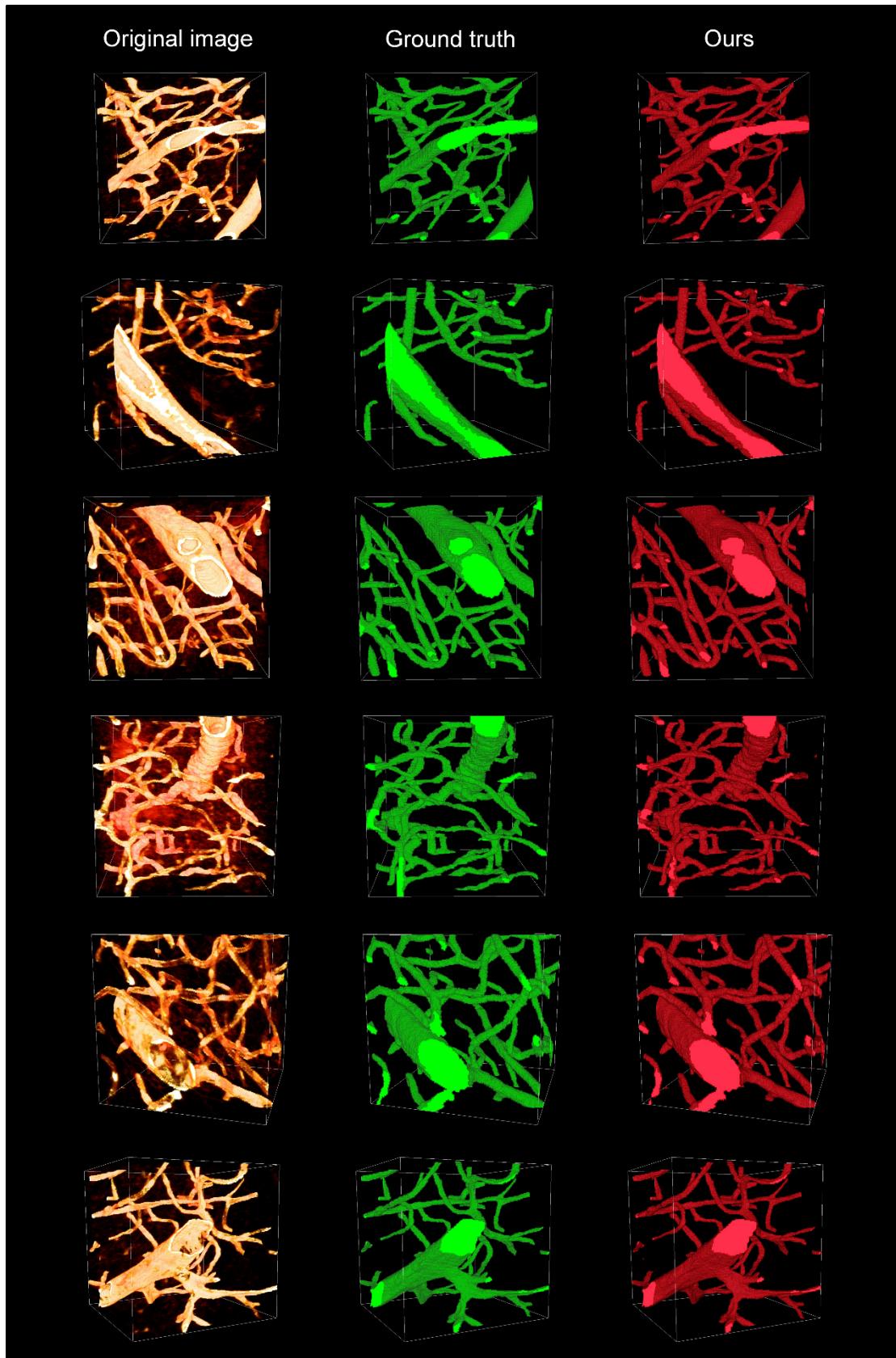


Fig. S4. Six examples of vessel segmentation results on dataset 2 (test dataset). Volume size:  $160 \times 160 \times 160 \mu\text{m}$ .